

Testimony of the
Geological Society of America
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Regarding the
U.S. Geological Survey
FY 2010 Budget Request

To the
United States Senate
Committee on Appropriations
Subcommittee on Interior, Environment, and Related Agencies
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Summary

The Geological Society of America (GSA) urges Congress to appropriate at least \$1.3 billion for the U.S. Geological Survey (USGS) in fiscal year 2010. The USGS is one of the nation's premier science agencies. It addresses many of the nation's greatest challenges, including energy resources, climate change, water resources, and natural hazards. The need for USGS science and information in these and other areas has increased dramatically as its budget has stagnated in real dollars for more than a decade (Figure 1).

The Geological Society of America supports strong and growing investments in earth science research at the U.S. Geological Survey and other federal agencies. Substantial increases in federal funding for earth science research are needed to ensure the health, vitality, and security of society and for stewardship of Earth. The USGS has a unique combination of biological, geographical, geological, and hydrological programs that enables it to address interdisciplinary research challenges that are beyond the capabilities of most other organizations. The need for USGS science and information has never been greater. The USGS benefits every American every day.

The Geological Society of America, founded in 1888, is a scientific society with over 22,000 members from academia, government, and industry in all 50 states and more than 90 countries. Through its meetings, publications, and programs, GSA enhances the professional growth of its members and promotes the geosciences in the service of humankind. GSA encourages cooperative research among earth, life, planetary, and social scientists, fosters public dialogue on geoscience issues, and supports all levels of earth science education.

SCIENCE n STEWARDSHIP n SERVICE

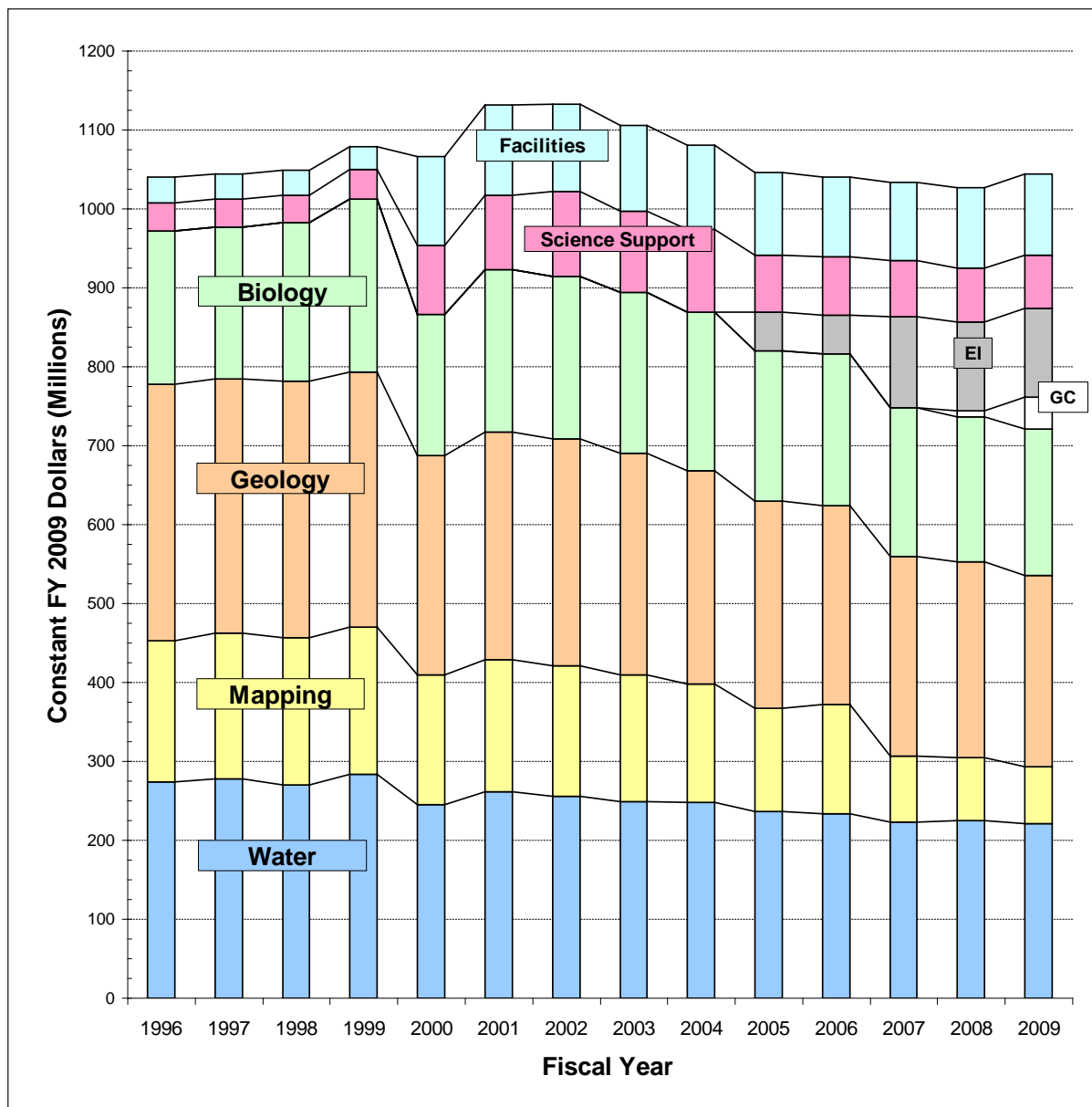


Figure 1. USGS funding in constant 2009 dollars, FY 1996 – FY 2009. EI is Enterprise Information and GC is Global Change. Source: USGS Budget Office.

Rationale

Science and technology are engines of economic prosperity, environmental quality, and national security. Federal investment in research pays substantial dividends. According to a recent report by the National Academies, “...the economic value of investing in science and technology has been thoroughly investigated. Published estimates of return on investment (ROI) for publicly funded R&D range from 20 to 67%” (*Rising Above the Gathering Storm*, 2007).

The earth sciences are critical components of the overall science and technology enterprise. Substantial increases in federal funding for earth science research are needed to ensure the

health, vitality, and security of society and for Earth stewardship. Earth science research provides knowledge and data essential for developing policies, legislation, and regulations regarding land, mineral, and water resources at all levels of government. Growing investments in earth science research are required to stimulate innovations that fuel the economy, provide security, and enhance the quality of life.

Broader Impacts of the Earth Sciences

It is critically important to significantly increase funding for the USGS to meet challenges posed by human interactions with Earth's natural systems in order to help sustain these natural systems and the economy. Additional investments in the USGS are necessary to address such issues as natural hazards, energy, water resources, and climate change.

- Natural hazards, such as earthquakes, tsunamis, volcanic eruptions, floods, droughts, and hurricanes, remain a major cause of fatalities and economic losses worldwide. An improved scientific understanding of geologic hazards will reduce future losses through better forecasts of their occurrence and magnitude. Ongoing volcanic activity in Alaska and ongoing flooding in North Dakota illustrates the value of robust natural hazards monitoring systems and the need for increased federal investments in the USGS.
- Energy and mineral resources are critical to the functioning of society and to national security and have positive impacts on local, national, and international economies and quality of life. Improved scientific understanding of these resources will allow for their better management and utilization, while at the same time considering economic and environmental issues. This is particularly significant because shifting resource demands often reframe our knowledge as new research-enabling technologies become available.
- The availability and quality of surface water and groundwater are vital to the well being of both society and ecosystems. Greater scientific understanding of these critical resources—and communication of new insights by geoscientists in formats useful to decision makers—is necessary to ensure adequate and safe water resources for the future.
- Forecasting the outcomes of human interactions with Earth's natural systems, including climate change, is limited by an incomplete understanding of geologic and environmental processes. Improved understanding of these processes in Earth's history can increase confidence in the ability to predict future states and enhance the prospects for mitigating or reversing adverse impacts to the planet and its inhabitants.
- Research in earth science is also fundamental to training and educating the next generation of earth science professionals.

The U.S. Geological Survey should be a component of broader initiatives to increase overall public investments in science and technology. For example, earth science research should be included in a recommendation by the National Academies to “increase the federal investment in long-term basic research by 10% each year over the next 7 years...” (*Rising Above the Gathering Storm*, 2007). Likewise, implementation of the America COMPETES Act, which authorizes a doubling of the budgets of key science agencies in seven years, should encompass earth science research and education programs in the USGS.

Budget Shortfalls

President Obama's FY 2010 budget request for the U.S. Geological Survey is \$1.098 billion, an increase of \$54 million, or 5.2 percent, above the enacted level in the FY 2009 Omnibus Appropriations Act. Budget increases are proposed for Secretarial Initiatives in climate change (\$22 million), energy (\$3 million) and youth conservation corps (\$2 million). Budget increases are also proposed for the national stream gage network (\$5 million), arctic ecosystem studies (\$4 million), staffing for biology cooperative research units (\$2 million), extended continental shelf studies (\$1 million), and sustainable energy development (\$0.7 million). The budget request would provide full funding for increases in "fixed costs" totaling \$21 million. These proposed investments deserve the full support of Congress.

We urge Congress to increase the USGS budget beyond the President's budget request for FY 2010. After years of stagnant budgets (Figure 1) and absorption of fixed cost increases, the USGS has a large and growing backlog of monitoring and science needs. Although the FY 2010 budget request would provide all USGS programs with an increase for fixed costs, most programs would receive no increase for program changes. Science cannot thrive on increases in fixed costs alone. Congress has an historic opportunity to meet fundamental national needs by providing program increases in such areas as earthquake hazards, volcano hazards, mineral resources, ground-water resources, national water-quality assessment, toxic substances hydrology, and hydrologic research and development.

The FY 2010 USGS budget request would reduce staff in water resources programs by 12 FTE. Congress should monitor the continuing decline in staff of USGS water programs.

The FY 2010 budget request comes at a critical juncture in the history of the USGS. From FY 1996 to 2008, funding for the USGS declined by 1 percent while total federal funding for research and development increased by 54 percent in real dollars. The decline in funding for the USGS during this time period would have been greater if Congress had not repeatedly restored proposed budget cuts. The USGS budget declined in real dollars for six consecutive years from FY 2003 to FY 2008 (Figure 1). In real terms, funding for the USGS is at its lowest level since FY 1997, the year after the National Biological Service was integrated into the USGS.

The Geological Society of America joins with the USGS Coalition and other organizations in recommending an appropriation of \$1.3 billion for the USGS in FY 2010. This budget would enable the USGS to strengthen core programs, accelerate the timetable for deployment of critical projects, and launch science initiatives that address new challenges.

The Geological Society of America is grateful to the Senate Appropriations Subcommittee on Interior, Environment, and Related Activities for its past leadership in increasing the budget for the U.S. Geological Survey. We are also grateful to the subcommittee for its leadership in providing \$140 million in stimulus funds for the USGS under the American Recovery and Reinvestment Act of 2009. Thank you for your thoughtful consideration of our request. For additional information or to learn more about the Geological Society of America, please visit www.geosociety.org or contact Dr. Craig Schiffries at cshiffries@geosociety.org.